

## REMARKS

Claims 8-10 and 24-26 are pending in the application. In light of the amendments and following remarks, Applicant believes all the pending claims are now in condition for allowance.

### Formal Matters

The Office Action indicated that although the specification is acceptable for examination purposes, it may not be suitable for printing if the patent issues because there was not enough room to punch holes in the top. Attached is a substitute specification pursuant to Rule 125. The specification is a copy of what was originally filed and contains no new matter. As it is a copy with no changes, a marked up version has not been submitted.

### The § 112, Second Paragraph, Rejection of Claims 8-10 and 24-26

The Office Action rejected claims 8-10 and 24-26 under 35 USC § 112, second paragraph, as allegedly being indefinite. More specifically, the Office Action asserted that the claims have an express requirement that the probes are different in sequence and an express requirement that the probes have the same sequence.

The claims initially recite that the polymer probes have the same "desired sequence." This means that it is desired that the probes have the same sequence, which should occur if there are no synthesis errors. For example, the specification starting on page 11, line 1 et seq. includes an example where probes with the desired sequence of 3'-ACGT are formed by a number of different cycles.

As the example discusses (see page 12, lines 3-10), if the first C cycle has an error, a probe 3'-AGT may be synthesized. Thus, the polymer probes that utilized this cycle may have a different actual sequence than was desired. Accordingly, the claims recite that a polymer probe does not have a same "actual sequence."

Contrary to what is asserted in the Office Action, the claims do not have an express requirement that the probes are different in sequence and an express requirement that the probes have the same sequence. Applicant used the terms "desired" and "actual" to be consistent with the specification and the ordinary meanings of the words. Thus, it is believed that the rejection should be withdrawn.

### The § 102(b) Rejection of Claims 8-10 and 24-26 re Socransky

The Office Action rejected claims 8-10 and 24-26 under 35 USC § 102(b) as allegedly being anticipated by "'Checkerboard' DNA-DNA Hybridization," published 1994 by S.S.

Socransky et al. (hereinafter "Socransky"). The Office Action indicated that if the claims recited probes that were different in sequence, this rejection would be withdrawn. As described above, the claims do recite that a polymer probe has a different actual sequence. Accordingly, the rejection should be withdrawn.

The § 102(b) Rejection of Claims 8-10 and 24-26 re Chee

The Office Action rejected claims 8-10 and 24-26 under 35 USC § 102(b) as allegedly being anticipated by U.S. Patent No. 5,837,832, issued November 17, 1998 to Chee et al. (hereinafter "Chee"). Thus, it is asserted that Chee discloses all the features of the claims. For the following reasons, Applicant respectfully traverses the rejection.

Applicant admits that the Chee patent teaches very innovative technologies. However, the Office Action has not presented a prima facie case of anticipation. For example, the Office Action cites col. 26, lines 45-50 of Chee as showing 8-mer probes that are each complementary to a portion of a 12-mer target. The 8-mer probes do not have the same desired sequence as recited in the claims. Thus, this section has not been shown to support a prima facie case of anticipation.

Additionally, the Office Action cited Fig. 27 and noted that a wild-type probe could be the same sequence as a substitution probe. Taking this as correct, the Office Action has not shown where it is taught that these two probes were formed with a different monomer addition cycle as claimed. Thus, these probes do not support a prima facie case of anticipation.

The Office Action then stated that the four substitution probes would share 16 of 17 nucleotides and would be formed with different monomer addition cycles. Applicant agrees that different monomer addition cycles are typically utilized to make probes that differ in sequence. However, the claims recite that probes have the same desired sequence. The substitution probes are designed to have different sequences as indicated by the teachings of Chee. Thus, these probes also do not support a prima facie case of anticipation.

In summary, the Office Action has not shown where Chee teaches substrates with all the features recited in the claims so a prima facie case of anticipation has not been established. The pending claims are therefore patentably distinct.

Conclusion

For the foregoing reasons, Applicant believes all the pending claims are in condition for allowance and should be passed to issue. If the Examiner feels that a telephone conference would in any way expedite the prosecution of the application, please do not hesitate to call the undersigned at (408) 446-8693.

Respectfully submitted,



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